

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

# NOTICE OF ALLOWANCE AND FEE(S) DUE

21874

7590

03/29/2004

EDWARDS & ANGELL, LLP P.O. BOX 55874 BOSTON, MA 02205 EXAMINER

NGUYEN, DILINH P

ART UNIT PAPER NUMBER

2814

DATE MAILED: 03/29/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,498	10/23/2001	Chien-Ping Huang	56598 (71987)	3954

TITLE OF INVENTION: SEMICONDUCTOR PACKAGE WITH FLASH-PROOF DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$300	\$1630	06/29/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- ☐ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

(703) 746-4000 or <u>Fax</u>

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where

appropriate. All further cor indicated unless corrected to maintenance fee notification	below or directed otherwise	atent, advance or in Block 1, by (a	ders and notif ) specifying a	new correspondence addre	s will be mailed to the current ess; and/or (b) indicating a sep-	correspondence address as arate "FEE ADDRESS" for
	E ADDRESS (Note: Legibly mark-up  03/29/2004  NGELL, LLP	with any corrections or	r use Block 1)	Fee(s) Transmittal. papers. Each additi- have its own certific	of mailing can only be used f This certificate cannot be used onal paper, such as an assignm cate of mailing or transmission. Certificate of Mailing or Tran t this Fee(s) Transmittal is bein	for any other accompanying ent or formal drawing, mus smission
BOSTON, MA 022	205			addressed to the M	t this Fee(s) Transmittal is being the with sufficient postage for find Mail Stop ISSUE FEE address ISPTO, on the date indicated be	rst class mail in an envelope above, or being facsimile
				dansmitted to die e	or 10, on the date indicated be	(Depositor's name)
						(Signature)
						(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED	INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,498	10/23/2001		Chien-Ping	g Huang	56598 (71987)	3954
TITLE OF INVENTION: SI	EMICONDUCTOR PACKA	GE WITH FLASH	1-PROOF DE	VICE		
APPLN. TYPE	SMALL ENTITY	ISSUE F	EE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	)	\$300	\$1630	06/29/2004
EXAM	IINER	ART UN	пт	CLASS-SUBCLASS	$\neg$	
NGUYEN,	DILINH P	2814		257-796000		
□ "Fee Address" indicati PTO/SB/47; Rev 03-02 ( Number is required.  3. ASSIGNEE NAME AND PLEASE NOTE: Unless been previously submitte (A) NAME OF ASSIGN	d to the USPTO or is being s EE	ion form of a Customer  E PRINTED ON Tow, no assignee dubmitted under se	agents OR, firm (havin agent) and attorneys o will be prin  THE PATENT ata will appeal parate cover. CB) RESIDENCI	(print or type)  r on the patent. Inclusion of this form is N E: (CITY and STATE OR C	ne of a single ed attorney or gistered patent sted, no name  3  f assignee data is only appropri OT a substitute for filing an ass	ate when an assignment has
	assignee category or categor				corporation or other private g	roup entity    government
4a. The following fee(s) are ☐ Issue Fee	enciosed:	46	D. Payment of F	ree(s): the amount of the fee(s) is	enclosed	
☐ Publication Fee				y credit card. Form PTO-20		
☐ Advance Order - # of	Copies		The Direct	tor is hereby authorized by	charge the required fee(s), or (enclose an extra o	credit any overpayment, to
Director for Patents is reques	sted to apply the Issue Fee an	nd Publication Fee			d issue fee to the application ide	
(Authorized Signature)		(Date)			,	
other than the applicant; interest as shown by the re-	d Publication Fee (if require a registered attorney or age cords of the United States Pa	ent; or the assigne- tent and Trademar	ee or other pa k Office.	urty in		
Under the Paperwork Re	tion is required by 37 CFR by the public which is to fil y is governed by 35 U.S.C. I test to complete, including gam to the USPTO. Time will the amount of time you rhis burden, should be sent to Office, U.S. Department of END FEES OR COMPLE for Patents, Alexandria, Virg duction Act of 1995, no pulses it displays a valid OME	ersons are requir	nation is requi IPTO to proce 14. This collect, and submitti upon the indi- te this form a mation Officer lexandria, Vi D THIS ADDI- red to responde	red to ss) an tion is ng the vidual and/or , U.S. rginia RESS.		



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE		NO. FILING DATE		CATION NO. FILING DATE		ON NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,498	10/047,498 10/23/2001		Chien-Ping Huang	56598 (71987)	3954						
21874	7590	03/29/2004		EXAM	INER						
EDWARDS & ANGELL, LLP P.O. BOX 55874			NGUYEN, DILINH P								
BOSTON, MA				ART UNIT	PAPER NUMBER						
				2814							
				DATE MAIL ED. 02/20/200	4						

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

ø

	Application No.	Applicant(s)			
	10/047,498	HUANG, CHIEN-PING			
Notice of Allowability	Examiner	Art Unit			
	DiLinh Nguyen	2814			
The MAILING DATE of this communication appears All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIPORT OF THE	ears on the cover sheet with the co (OR REMAINS) CLOSED in this ap or other appropriate communication IGHTS. This application is subject to	orrespondence address plication. If not included n will be mailed in due course. THIS			
1. This communication is responsive to <u>3/9/04</u> .					
2. A The allowed claim(s) is/are 1-6 and 9.					
3. The drawings filed on 23 October 2001 are accepted by the	e Examiner.				
<ul> <li>4.  Acknowledgment is made of a claim for foreign priority unally All b)  Some* c)  None of the: <ol> <li>Certified copies of the priority documents have</li> <li>Certified copies of the priority documents have</li> <li>Copies of the certified copies of the priority documents have</li> <li>Topies of the certified copies of the priority documents have</li> <li>Certified copies of the certified copies of the priority do</li> <li>Tertified copies not received:</li> </ol> </li> <li>Applicant has THREE MONTHS FROM THE "MAILING DATE"</li> </ul>	be been received. be been received in Application No cuments have been received in this of this communication to file a reply	national stage application from the			
noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	IENT of this application.				
<ol> <li>A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.</li> </ol>					
6. CORRECTED DRAWINGS ( as "replacement sheets") mus					
(a) ☐ including changes required by the Notice of Draftspers		948) attached			
1) hereto or 2) to Paper No./Mail Date		Office action of			
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date					
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t	.84(c)) should be written on the drawi he header according to 37 CFR 1.121(	ngs in the front (not the back) of d).			
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.					
Attachment(s)  1. Notice of References Cited (PTO-892)  2. Notice of Draftperson's Patent Drawing Review (PTO-948)  3. Information Disclosure Statements (PTO-1449 or PTO/SB/O Paper No./Mail Date	6. ☐ Interview Summary Paper No./Mail Da 08), 7. ☐ Examiner's Amendi	te ment/Comment			
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. ⊠ Examiner's Stateme	ent of Reasons for Allowance			

Application/Control Number: 10/047,498 Page 2

Art Unit: 2814

## **DETAILED ACTION**

### REASONS FOR ALLOWANCE

Claims 1-6 and 9 are allowed.

The following is an examiner's statement of reasons for allowance:

Tao et al. and Shishido et al. fail to disclose the combination of all the limitations recited, including a flash proof device attached to the first side of the substrate and formed with a cavity for receiving the chip and the passive device, a distance in elevation from a top side of the flash proof device to the first side of the substrate is made to be slightly greater than a depth of a molding cavity, the flash proof device has an outer sidewall aligned with a side edge of the substrate, and an encapsulant formed by a molding compound for encapsulating the chip, the passive device, the flash proof device and the substrate.

Therefore, the amended limitation together with the overall structure of the semiconductor package is neither anticipated nor rendered obvious over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 10/047,498 Page 3

Art Unit: 2814

# Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DiLinh Nguyen whose telephone number is (571) 272-1712. The examiner can normally be reached on 8:00AM - 6:00PM (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

DLN March 17, 2004

> LONG HAM PRIMARY EXAMINA